

A1 taste becomes hard and shows no crispiness. When 64 or more fat layers are formed, the dough layers become too thin. In this case, the dough layers cannot hold the gas generated from the chemical leavening agents in the baking step and thus the whole pie dough fails to puff.--

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Please replace the paragraph beginning on page 6, line 9, with the following rewritten paragraph:

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A2 --The chemical leavening agents, which are a mixture obtained by mixing alkaline leavening agents and leavening acid undergoing a neutralization reaction with the gas-generating agent optionally together with a dispersant, can be made a quick action type, a delayed action type, a long-lasting action type, etc. by appropriately controlling the combination of the leavening acid depending on the purpose, and texture of the product, the method of preparing the dough and the like. As the gas-generating agent to be used in the invention, it is desirable to select sodium hydrogencarbonate which generates carbon dioxide gas. The gas generating speed can be controlled by appropriately combining the gas-generating agent with the leavening acid. In the present invention, the chemical leavening agents are spread onto the dough or the roll-in fat and then the roll-in fat is wrapped in the dough followed by folding. Thus, the chemical leavening agents are uniformly dispersed between respective dough layers and fat layers.

In the chemical leavening agents, the gas-generating agent and the leavening acid are dissolved in the moisture contained in the pie dough and react with each other to thereby generate a gas in the step of preparing the pie dough. As a result, voids are formed between the dough layers and the fat layers. In the step of freezing the pie dough thus prepared, a part of the chemical leavening agents should remain in the unreacted state in the dough. Therefore, it is necessary to combine a quick action type acidic agent with a delayed action type acidic agent. As the delayed action type acidic agent which should generate a gas before the solidification of the dough in the step of baking in an oven following the freezing, it is preferable to use an acidic agent capable of reacting with the gas-generating agent at as low temperature as possible (60°C or lower), for example, burnt alum, sodium pyrophosphate, etc. Examples of the quick action type acidic agent include sodium primary phosphate, fumaric acid, and gluconic  $\delta$ -lactone. As the dispersing agent, it is preferable to use wheat flour which is employed in the pie dough. To achieve the desired dispersion, it is used in an amount of from 20 to 30% by weight in the chemical leavening agents. The content of the chemical leavening agents ranges from about 0.5 to 5% by weight, preferably from 2.0 to 4.0% by weight, based on the weight of the cereal flour in the dough. In case of using sodium hydrogencarbonate, the content of the gas-generating agent ranges from about 0.3 to 2%

by weight, preferably from 0.5 to 1.5% by weight based on the weight  
A2 of the cereal flour.--

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Please replace the paragraph beginning on page 8, line 6, with the following rewritten paragraph:

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A3 --The leavening acid is used in order to control the reaction speed of the gas-generating agent. It is necessary in the present invention to determine the composition rate depending on the temperature and time for the preparation of the pie dough, the amount of the voids (thickness) formed in the pie dough and the amount of the chemical leavening agents remaining in the pie dough. The content of the leavening acid to the gas-generating agent is controlled so as to adjust the pH value of the final dough to from about 5.0 to 6.8 after the neutralization reaction with the gas-generating agent. The ratio of the quick action type acidic agent to the delayed action type acidic agent (quick action type acidic agent: delayed action type acidic agent) ranges from 10 : 90 to 50 : 50. When the content of the chemical leavening agents is too small, it fails to exert the effect as chemical leavening agents. On the other hand, it is undesirable from the viewpoint of taste to use the chemical leavening agents in an excessively large amount, since the bitterness due to the chemical leavening agents is enhanced in this case.--

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Please replace the paragraph beginning on page 9, line 18, with the following rewritten paragraph:

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AY --The voids in the pie dough of the invention mean spaces which are present between the dough layers and the fat layers of the pie dough. These voids can be observed by cutting the pie dough product in a frozen state. Because of having been formed by the gas-generating reaction of the chemical leavening agents spread along the fat layer, these voids are seemingly present somewhat continuously to thereby form layers. The thickness of such a layer cannot be measured by the naked eye but can be roughly calculated based on the thickness of the pie dough, the folding number of the layers on which the chemical leavening agents have been spread, and the dough density ratio of the pie dough having the voids to a void-free pie dough of the same composition (i.e., dough density of pie dough containing chemical leavening agent layer/dough density of untreated pie dough). Provided that the chemical leavening agents are uniformly dispersed to form layers, the thickness of the void layer is represented by the following formula:

$$\frac{(\text{pie dough thickness}) \times (1 - \text{dough density of pie dough containing chemical leavening agent layer} / \text{dough density of untreated pie dough})}{\text{number of chemical leavening agent layers}}$$
 In case where the void thickness is too small, no effect can be achieved. In case where the void thickness is too large, the final product is provided

with large voids and thus fails to achieve any crispy texture  
A4 inherent to pie.--

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Please replace the paragraph beginning on page 10, line 16, with the following rewritten paragraph:

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A5 --The number of the void layers, which depends on the manner of spreading the chemical leavening agents on the dough surface and the folding number of the fat layer, ranges from 16 to 128, preferably from 24 to 72. In case where the chemical leavening agents are spread on both faces of 32 fat layers, for example, 64 void layers are formed. When an excessively large number of void layers are formed, each void becomes too thin. On the other hand, well-balanced puffing of the final product cannot be established when the number of the void layers is too small.--

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Please replace the paragraph beginning on page 13, line 16, with the following rewritten paragraph:

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A6 --First, a dough is prepared. A cereal flour, water and a fat are mixed and kneaded in a mixer to give a dough having a hardness appropriate for the purpose. As a machine for preparing the dough, use can be made of a mixer (a horizontal mixer, a vertical mixer, etc.) commonly employed in the art.--

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Please replace the paragraph beginning on page 17, line 10, with the following rewritten paragraph:

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A7 --In case where the frozen pie dough according to the invention is baked directly from the frozen state in a high-power oven, the gas generated from the chemical leavening agents remaining in the unreacted state in the pie dough is concentrated in the void layers at the early stage of heating (at low pie dough temperature of 40°C or less) and triggers the puffing, thereby promoting the smooth puffing of the whole pie dough. Water vapor generated from the fat and the dough by heating migrates into the void layers and thus the whole dough layers are uniformly risen. At the same time, the vapor contributes to the uniform heat transfer toward the center of the pie dough. As a result, it becomes possible to obtain a pie which has a stable shape, can be easily baked, is well risen to give a layered texture and has a crispy and favorable texture.--

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Please replace the paragraph beginning on page 18, line 4, with the following rewritten paragraph:

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A8 --A frozen pie dough of the composition as listed in Table 1 was prepared. Table 2 shows the composition of the chemical leavening agents given in Table 1. 750 g of hard wheat flour, 250 g of soft wheat flour, 12 g of salt, 80 g of a knead-in fat and 550 g of water were mixed and kneaded in a vertical 10 L mixer (Kanto Kongoki). The kneading was performed at a low speed for 3 minutes and then at a

A8 medium speed for 5 minutes. After kneading, the dough temperature was 20°C. The dough was rolled and the chemical leavening agents and the roll-in fat were wrapped therein in the following manner. The dough was rolled to give a sheet of about 210 mm in width, about 100 mm in length and about 7 mm in thickness. 30 g of the chemical leavening agents for spreading was uniformly spread all over the dough surface. Then 650 g of the roll-in fat (margarine) of about 100 mm in length, about 100 mm in width and about 7 mm in thickness was placed thereon. The dough was folded in two thereby wrapping the chemical leavening agents and the margarine. The dough having the chemical leavening agents and the margarine wrapped therein was rolled with a reverse sheeter (Kamata Kikai) to give a thin sheet of about 5 mm in thickness. After folding in two, the sheet was further rolled into a sheet of about 5 mm in thickness. After folding in four, the sheet was further rolled into a sheet of about 5 mm in thickness and then folded in four. Finally, it was rolled into a sheet of 3.0 mm in thickness to thereby give a pie dough consisting of 32 fold-in fat layers and 64 chemical leavening agent layers. This pie dough was cut into rectangular pieces (150 mm in length x 60 mm in width, 150 mm in length x 65 mm in width) and 35 g of an apple filling (moisture content: 63%) was wrapped in these two pie dough pieces (total weight: 60 g) to give an apple pie of 60 mm in width and 150 mm in length. The dough temperature at the shaping step was 22°C. The time required for shaping the dough (i.e., from the

spreading of the chemical leavening agents to the introduction into a freezer) was 30 minutes. After freezing in the freezer at -30°C for 40 minutes, a frozen apple pie dough of a center temperature of -18°C was obtained.-

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Please replace the paragraph beginning on page 20, line 5, with the following rewritten paragraph:

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--Knead-in fat (margarine)

80--

Please replace the paragraph beginning on page 20, line 7, with the following rewritten paragraph:

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--Water

550--



Please replace the table beginning page 29 with the following rewritten table:

--Table 3: Pie dough conditions and evaluation of baked products of Examples (after baking in jet oven at 270°C for 6 minutes and 30 seconds)

		Exam- ple 1	Exam- ple 2	Exam- ple 3	Exam- ple 4	Exam- ple 5	Exam- ple 6	Exam- ple 7
Observation of pie dough	Pie dough density (g/cm <sup>3</sup> )	1.052	1.072	1.081	1.012	1.066	1.041	1.032
	Void layer	many	yes	yes	many	many	yes	yes
Baked form	Remaining gas yield (ml/g)	0.48	0.56	0.21	0.94	0.43	0.35	0.48
	Rise	34 mm	31 mm	30 mm	33 mm	29 mm	43 mm	20 mm
	Maximum Minimum Difference	28 mm 6 mm	28 mm 3 mm	20 mm 10 mm	28 mm 5 mm	22 mm 7 mm	35 mm 8 mm	18 mm 2 mm
Sensory evaluation	Stability	uniform and stable	uniform and stable	stable	uniform and stable	uniform and stable	stable	stable
	Appearance	7	8	6	8	7	7	6
	Baking performance/ Crispiness	8	8	6	9	6	5	9
	Evaluation of piecrust	8	9	5	7	5	6	3
		8	8	5	7	8	6	2
		good	good	good	some- what bitter	good	good	good

Note: Sensory evaluation data are each expressed in the average of scores (10 grades) given by 10 skilled panelists.--

Please replace the paragraph beginning on page 30, line 1, with the following rewritten paragraph:

A12 --A frozen apple pie dough was prepared as in Example 1 but spreading no chemical leavening agent. After mixing the dough, no chemical leavening agent was spread on the step of wrapping the roll-in margarine. Subsequently, the dough was folded in four, three and four as in Example 1 to give a pie dough of 3.0 mm in thickness. This pie dough was cut into rectangular pieces (150 mm in length x 60 mm in width, 150 mm in length x 65 mm in width) and 35 g of an apple filling (moisture content: 63%) was wrapped in these two pie dough pieces (total weight: 60 g) to give an apple pie of 60 mm in width and 150 mm in length. After freezing in the freezer at -30°C for 40 minutes, a frozen apple pie dough of a center temperature of -18°C was obtained.--

**IN THE CLAIMS:**

Please amend the claims as follows:

A13 3. (Amended) The frozen pie dough as claimed in claim 1 wherein the gas yield per gram of the pie dough while baking said pie dough is from 0.1 ml/g to 1.2 ml/g.

A14 5. (Amended) A frozen pie dough product wherein a filling is wrapped in the pie dough as claimed in any of claims 1 to 3.